

that as he had gathered them from the previously "un-fathomed depths of ocean" in all climes, the direction of the work of describing and reporting upon the specimens should be entrusted by the Treasury to Prof. Thomson. For the last two years, however, Prof. Thomson has not been able to do much in connection with this important work, which has, in consequence, largely devolved upon his able first assistant, Mr. John Murray, who, in the beginning of the present year, was on account of the state of health of his chief, appointed director.

Immediately on his return to this country from his extended voyaging, Prof. Thomson's services to the cause of science were acknowledged in various quarters. On June 27 he received the honour of knighthood; the Royal Society of London awarded him one of its gold medals; and in July of the same year he, along with the other members of the scientific staff of the *Challenger*, were entertained at a banquet in Edinburgh, at which the toast of the evening was proposed in eulogistic terms by Prof. Huxley. Subsequently, when, along with Emeritus Professor Balfour, he went as the representative of the Edinburgh Senatus to Upsala on the occasion of the tercentenary of that ancient University, the King of Sweden created him a Knight of the Order of the Polar Star. Sir Wyville was also an LL.D. of Aberdeen, a D.C.L. of Dublin, a Doctor of Philosophy of the University of Jena, a D.Sc., a Fellow of the Royal Societies of London and Edinburgh, of the Linnean Society, and of various foreign and colonial institutes. In 1877 Sir Wyville was appointed to deliver the Rede Lecture at Cambridge; and in 1878 he presided over the Geographical Section of the British Association at its meeting in Dublin. In addition to numerous memorials on zoological subjects, and contributions to the proceedings of the scientific societies with which he was connected, Sir Wyville also wrote a preliminary account of the general results of the *Challenger* Expedition, which was published in two volumes under the titles of the "Voyage of the *Challenger*—The Atlantic."

After his return in 1876 from the voyage of the *Challenger* Expedition, it was remarked that his long spell of travel had not brought increased physical vigour; but it was not until 1879 that his condition gave his friends serious cause for uneasiness. In June of that year he was prostrated by an attack of paralysis, and unable to conduct his class of Natural History in the University of Edinburgh, and the important undertaking in which he was engaged, of directing the working out of the *Challenger* researches, with the view of furnishing to the world a complete record of the results, had to be laid aside, only to be intermittently touched again before the time came when he had to resign it entirely into other hands. In October last he resigned his Chair in the University, and we believe that arrangements had just been completed by the Senatus in respect to his retiring allowance. Some four months ago he had a second paralytic attack, and since then his health has been feeble. He died on Friday morning at three o'clock.

The departments of zoology to which he devoted most attention were those which included the corals, crinoids, and sponges, and upon these his opinion was regarded as of great weight. In the University he was held in esteem by his colleagues of the Senatus, and among the students he was exceedingly popular. In private life he was regarded by his friends as possessed of a kindly and hospitable disposition.

Sir Wyville Thomson married a sister of the late Mr. Adam Dawson of Bonnytoun, Linlithgowshire, for some years Provost of Linlithgow, whose father also occupied the same honourable position for the greater part of his life. He is survived by Lady Thomson and one son, an M.A. of the University of Edinburgh, who is at present engaged in the study of law.

THOMAS ROMNEY ROBINSON, D.D.

THOMAS ROMNEY ROBINSON, D.D., F.R.S., whose death we recorded in our last issue, was born in Dublin on April 23, 1793. His abilities and genius seem to have been manifested at a very early age, and his first appearance as an author dates so far back as 1806. On that occasion his venture was entitled "Juvenile Poems by Thomas Romney Robinson, to which is prefixed a short account of the Author by a Member of the Belfast Literary Society :" Belfast, 1806. The book contains a number of poems written by the author at various ages below thirteen. Dr. Robinson's last publication is in the *Philosophical Transactions* for 1880, and it must be regarded as a curious circumstance in literary history that an interval of three-quarters of a century should have elapsed between Dr. Robinson's first appearance as an amateur and his last.

In the year 1814 Dr. Robinson was elected a Fellow of Trinity College, Dublin, and he was for several years engaged in lecturing in the University as Deputy Professor of Natural Philosophy. In connection with his labours as a teacher he published in 1820 a volume entitled "A System of Medicine for the use of Students in the Dublin University."

After a residence for nine years at Dublin University, Dr. Robinson accepted the living of Enniskillen, which was in the gift of Trinity College. Robinson's career in the University was thus finished the year before Humphrey Lloyd, the late Provost, was elected to a fellowship.

Dr. Robinson did not long remain Rector of Enniskillen. In the year 1824 he exchanged the living of Enniskillen for that of Carrickmacross; and of his ecclesiastical career there is little further to note, except that about half a century later (in the year 1872) he was nominated a Prebendary of St. Patrick's Cathedral, Dublin, and that several of his sermons have been published.

Dr. Robinson is principally known to fame by his connection with the Armagh Observatory. The observatory at Armagh was founded in 1793 by Primate Robinson. The endowment of the observatory, as well as that of a public library, arose out of Primate Robinson's scheme of forming at Armagh a university which might serve for the education of the North of Ireland. It is needless to say that the greater part of the Primate's beneficent scheme was never realised. At his death the meridian instruments he had ordered for the observatory seem to have been countermanded by his heirs. The two succeeding primates had but little interest in science, and it was not until they were succeeded by Lord John George Beresford, the late Primate, that any further steps were taken. Primate Beresford presented to the observatory a transit instrument, a mural circle, and an equatorial reflector of fifteen inches' aperture. The first of these was erected in 1827, and the last in 1835. It was in the year 1824 that Dr. Robinson was appointed director of the Armagh Observatory. He threw himself into the work of practical astronomy with the greatest zeal and success, and the celebrated "Armagh Catalogue" is a noble monument of his assiduity and skill. This catalogue, though not published until 1859, contains many observations of stars between the years 1830-40, of which we possess few contemporary observations. On this account the Armagh Catalogue has a distinct value, and it has been much used by Argelander in his investigations of the proper motion of 250 stars in vol. vii. of the Bonn Observations.

The mural circle at Armagh was subsequently furnished with a new telescope having an objective of 7 inches' aperture, and with this 1000 of Lalande's stars, nearly all between 6 \circ and 7 \circ magnitude were re-observed in 1868-76, and the results have been published in the *Transactions of the Royal Dublin Society*, new series, vol. i.

Dr. Robinson's determination of the constant of nutation also deserves notice, though for reasons which need

not now be discussed it has never come into practical use among astronomers.

The celebrated cup anemometers, now so extensively used, are an indication of the practical skill and ingenuity by which Dr. Robinson was distinguished. The very latest scientific labour of his long life was a redetermination of the constants of the cup anemometer. This was accomplished by experiments on a very large scale, in the dome of Mr. Grubb's workshops, at Dublin. The results of these labours have been published in the *Phil. Trans.*, 1878-1880.

Considering that Dr. Robinson was an author before the battle of Trafalgar, that he was elected a Fellow before the battle of Waterloo, and that he was made director of the Armagh Observatory within a year or two of the death of Sir W. Herschel, it is not surprising to find that Dr. Robinson's scientific friends and associates belonged mainly to the past generation. In that past generation, Dr. Robinson occupied a distinguished and remarkable position. He was intimately associated with the late Earl of Rosse in all those memorable experiments which culminated in the great reflector at Parsonstown. He was the friend of Sir James South, of Sir William Fairbairn, and of many other celebrities. His wide sympathy, his gentle and invariable kindness, his wondrous stores of knowledge, his charming powers of conversation, his brilliant eloquence, were qualities universally recognised, and caused him to be welcomed and beloved in many circles besides those purely scientific.

NOTES

WE learn that Dr. Huggins obtained a photograph of the spectrum of the great nebula in Orion on the 7th inst., and that in addition to known lines, it shows a strong line in the ultra-violet.

THE death is announced, at the early age of forty-six years, of Prof. A. Freire Marreco, who filled the Chair of Chemistry in the Newcastle College of Science. Prof. Marreco had a considerable reputation as a working chemist, and did much to promote the cause of science in the north of England.

THE death is announced of Herr J. J. Sievers, the well-known astronomer, who died at Alkona on February 22 last, aged seventy-seven.

AT the dinner given by the Lord Mayor on Saturday to a large number of gentlemen who have shown an interest in the Smoke Abatement Exhibition, Mr. Shaw Lefevre pointed out that we had advanced nothing in the cure of London fogs since the days of Evelyn, who gave great attention to the subject. Mr. Ernest Hart, the Chairman of the Committee, spoke of the loss by dirt and the loss by darkness, amounting to many millions, occasioned by smoke and fog; and, referring to the late exhibition, said the scientific results were most satisfying and encouraging. Many excellent inventions proved the perfect practicability of abating smoke from domestic grates, and especially from kitcheners (which were now the greatest offenders), and there was not an industry in the country which would not be benefited by an application of some one or other of the exhibits. Mr. Hart adduced some striking statistics to show the serious loss of life by the recent London fogs, and stated that during these fogs he had telegraphed to various places just outside London, and found that the weather was clear and beautiful. Surely some earnest effort will now be made to abate the serious nuisance.

IN a note on the appointment to the Edinburgh Natural History Chair, the *Spectator* of March 11 says: "There is a great, though not obtrusive, dissatisfaction in Scotch educational circles, and even beyond them, at the unprecedented delay of the Home Office in filling up the Chair of Natural History in

the University of Edinburgh, which Sir Wyville Thomson long ago resigned. The post is the academic blue riband of natural science in Great Britain. The annual emoluments, between fees and endowment, come to close upon 2000*l.* The work of the Chair is not arduous, and the occupant has the advantage of living in the most charming of provincial cities, and of being lionised by its society. Some of the most eminent biologists in the United Kingdom, including the Professors of Natural History in the three other Scotch Universities of Glasgow, Aberdeen, and St. Andrew's, are candidates for the Chair. But Lord Rosebery, with whom, as Under-Home Secretary, the appointment virtually lies, is understood all over the country—we hope falsely—to be desirous to appoint Prof. Ray Lankester, of University College, whose cause is actively championed by Prof. Huxley. Able as Prof. Ray Lankester is, we should greatly regret, in the interests of Scotland, to see the appointment of so very relentless a champion of vivisection, nay, even of a large extension of vivisection, to a Chair of influence in Edinburgh." This is a fine instance of good taste and sound judgment. If Prof. Lankester's high qualifications are recognised, Lord Rosebery is not likely to be influenced by a bye question, urged especially in such a way from such a quarter.

THE Society of Chemical Industry has proved so far successful that they have been able to begin the publication of a *Journal* intended as a "Monthly Record for all interested in Chemical Manufactures." The first number was published in January, and contains various reports connected with the Society and its branches, a paper on Artificial Indigo, by Professors Roscoe and Baeyer, and a number of interesting notes. Prof. Abel's address at the opening of the London section is of great interest as showing in a great variety of instances the intimate dependence of manufactures on success in improvement of chemical processes, and advance in chemical research. "It is, indeed, I submit," Prof. Abel said, "the special duty of this section of the Society to demonstrate, by its activity, how intimately interested in the advancement of applied chemistry, physics, and mechanics, are a large number of trades which are practised in the metropolitan area, and how closely allied to each other in regard to their interests in the development of chemical and engineering science are many trades which, to the general public or the superficial observer, would appear to have little interest in common. Certainly, in no part of Her Majesty's kingdom, I may say of the universe, can be found congregated together so great a variety of important manufacturing trades—all of them deriving direct advantage from the advance and the application of science—as exist within our metropolitan area and its immediate environs. Thus, among those whose trades, pursued in and around the metropolis, may be considered to bring them within the possible scope of activity of a society founded for the advancement of chemical industries, we have the manufacturers of definite chemical products, of drugs, and of pharmaceutical preparations, of white lead and other mineral colours, of varnishes and lacquers, of all the various products of coal-tar distillation, from creosote and pitch to dyes of the greatest beauty and purity; of manures, of cements, of candles, soaps, and lubricants; the refiners of sugar, of oils, and of metals; brewers, distillers, tanners, makers of glue and size, of pottery, stoneware, and glass, of gunpowder and pyrotechnic compositions, of waterproof goods and insulating materials. Extensive as this list is, it might probably be added to considerably." It is evident there is ample scope for the work of such a society as this, and on its present lines it is likely to do much good.

PROF. HAECKEL, of Jena, has now concluded the zoological work he was conducting on the south coast of Ceylon during two months, and has sent over fifty cases with natural history collections to Jena. His researches on the Ceylon coral reefs were